

Title (en)  
BEAM-EXPANDING DEVICE

Title (de)  
STRAHLERWEITERUNGSVORRICHTUNG

Title (fr)  
DILATATEUR DE FAISCEAU

Publication  
**EP 1318418 A1 20030611 (EN)**

Application  
**EP 01920031 A 20010330**

Priority  
• RU 0100129 W 20010330  
• RU 2000119266 A 20000719

Abstract (en)  
A radiation beam expander includes planar optical waveguide (2) and stripe waveguide (3) provided with a set of unit reflectors (4) that overlap its aperture, and is arranged in the plane of planar waveguide (2), within said waveguide itself or in the vicinity thereof, with providing the possibility of transition of light beams (6'), reflected by unit reflectors (4), into planar waveguide (2). Angle of inclination and arrangement of unit reflectors (4) being selected such that phase difference on the operating radiation wavelength, for any pair of beams (6') reflected from different unit reflectors (4), is essentially multiple of  $2\pi$ . <IMAGE>

IPC 1-7  
**G02B 6/12**; **G02B 6/26**

IPC 8 full level  
**G02B 6/12** (2006.01); **G02B 6/122** (2006.01); **G02B 6/26** (2006.01)

CPC (source: EP US)  
**G02B 6/122** (2013.01 - EP US); **G02B 6/1228** (2013.01 - EP US); **G02B 2006/12097** (2013.01 - EP US)

Cited by  
US6999639B2

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**EP 1318418 A1 20030611**; **EP 1318418 A4 20030924**; AU 4697601 A 20020130; CA 2416678 A1 20020124; CN 1449503 A 20031015; RU 2183337 C2 20020610; US 2003169969 A1 20030911; US 6836601 B2 20041228; WO 0206873 A1 20020124

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**EP 01920031 A 20010330**; AU 4697601 A 20010330; CA 2416678 A 20010330; CN 01814575 A 20010330; RU 0100129 W 20010330; RU 2000119266 A 20000719; US 33348303 A 20030117